No. 7900082

THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

New Mexico Crop Improvement Association

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF *seventeen* YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR MARKETING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT. THE UNITED STATES SEED OF THIS VARIETY (1) SHALL BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED AND (2) SHALL CONFORM TO THE NUMBER OF GENERATIONS PRESCRIBED BY THE OWNER OF THE RIGHTS. (84 STAT. 1542, AS AMENDED, 7 U.S.C. 2321 ET SEQ.)

SAINFOIN

'Renumex'

In Testimony Whereof, *I have hereunto set my hand and caused the seal of the* Plant Variety Protection Office *to be affixed at the City of* Washington *this* 11th *day of* September *in the year of our Lord one thousand nine hundred and* eighty.

Attest:

Commissioner
Plant Variety Protection Office
Grain Division
Agricultural Marketing Service

Secretary of Agriculture

UNITED STATES DEPARTMENT OF AGRICULTURE
AGRICULTURAL MARKETING SERVICE
LIVESTOCK, POULTRY, GRAIN & SEED DIVISION

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

INSTRUCTIONS: *See Reverse.*

FORM APPROVED
OMB NO. 40-R3822

No certificate for plant variety protection may be issued unless a completed application form has been received (5 U.S.C. 553).

1a. TEMPORARY DESIGNATION OF VARIETY	1b. VARIETY NAME	FOR OFFICIAL USE ONLY
N. M. Regrowth (Cycle-)	RENUMEX	PV NUMBER 7900082
2. KIND NAME: Sainfoin	3. GENUS AND SPECIES NAME: Onobrychis viciaefolia	FILING DATE 5-30-79 / TIME 11:00 A.M. P.M.
4. FAMILY NAME (BOTANICAL): Leguminosae	5. DATE OF DETERMINATION: 4/1/'77	FEE RECEIVED $ 500.00 $ 250.00 / DATE 5-30-79 6/10/80

6. NAME OF APPLICANT(S)	7. ADDRESS (*Street and No. or R.F.D. No., City, State, and ZIP Code*)	8. TELEPHONE AREA CODE AND NUMBER
NM Crop Improvement Assn.	Box 3CI, New Mexico State University, Las Cruces, NM 88003	(505) 646-4125

9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: (*Corporation, partnership, association, etc.*)	10. IF INCORPORATED, GIVE STATE AND DATE OF INCORPORATION	11. DATE OF INCORPORATION
Association	New Mexico	August 27, 1947

12. NAME AND MAILING ADDRESS OF APPLICANT REPRESENTATIVE(S), IF ANY, TO SERVE IN THIS APPLICATION AND RECEIVE ALL PAPERS:
New Mexico Crop Improvement Association, Box 3CI,
NMSU, Las Cruces, NM 88003

13. **CHECK BOX BELOW FOR EACH ATTACHMENT SUBMITTED:**

- [X] 13A. Exhibit A, Origin and Breeding History of the Variety *(See Section 52 of the Plant Variety Protection Act.)*
- [X] 13B. Exhibit B, Novelty Statement.
- [X] 13C. Exhibit C, Objective Description of the Variety *(Request form from Plant Variety Protection Office.)*
- [X] 13D. Exhibit D, Additional Description of the Variety.

14a. DOES THE APPLICANT(S) SPECIFY THAT SEED OF THIS VARIETY BE SOLD BY VARIETY NAME ONLY AS A CLASS OF CERTIFIED SEED? *(See Section 83(a). (If "Yes," answer 14B and 14C below.)* [X] YES [ ] NO

14b. DOES THE APPLICANT(S) SPECIFY THAT THIS VARIETY BE LIMITED AS TO NUMBER OF GENERATIONS?	14c. IF "YES," TO 14B, HOW MANY GENERATIONS OF PRODUCTION BEYOND BREEDER SEED?
[X] YES [ ] NO	[X] FOUNDATION [X] REGISTERED [X] CERTIFIED

15a. DID THE APPLICANT(S) FILE FOR PROTECTION OF THIS VARIETY IN OTHER COUNTRIES? [ ] YES [X] NO *(If "Yes," give name of countries and dates.)*

15b. HAVE RIGHTS BEEN GRANTED THIS VARIETY IN OTHER COUNTRIES? [ ] YES [X] NO *(If "Yes," give name of countries and dates.)*

16. DOES THE APPLICANT(S) AGREE TO THE PUBLICATION OF HIS/HER (THEIR) NAME(S) AND ADDRESS IN THE OFFICIAL JOURNAL? [X] YES [ ] NO

17. The applicant(s) declare(s) that a viable sample of basic seed of this variety will be furnished with the application and will be replenished upon request in accordance with such regulations as may be applicable.

The undersigned applicant(s) is (are) the owner(s) of this sexually reproduced novel plant variety, and believe(s) that the variety is distinct, uniform, and stable as required in Section 41, and is entitled to protection under the provisions of Section 42 of the Plant Variety Act.

Applicant(s) is (are) informed that false representation herein can jeopardize protection and result in penalties.

May 14, 1979
(DATE)

J. C. Jenkins
(SIGNATURE OF APPLICANT)

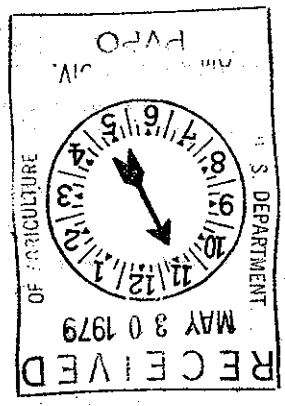
May 14, 1979
(DATE)

Robert E. Ayler
(SIGNATURE OF APPLICANT)

FORM GR-470 (1-78)

INSTRUCTIONS

GENERAL: Send an original copy of the application and exhibits, at least 2,500 viable seeds, and $500 fee ($250 filing fee and $250 examination fee) to U.S. Dept. of Agriculture, Agricultural Marketing Service, Livestock, Poultry, Grain and Seed Division, Plant Variety Protection Office, National Agricultural Library Building, Beltsville, Maryland 20705. (See section 180.175 of the Regulations and Rules of Practice.) Retain one copy for your files. All items on the face of the form are self-explanatory unless noted below.



ITEM

5 Give the date the applicant determined that he had a new variety based on (1) the definition in section 41(a) of the Act and (2) the date a decision was made to increase the seed.

13a Give: (1) the genealogy, including public and commercial varieties, lines, or clones used, and the breeding method; (2) the details of subsequent stages of selection and multiplication; (3) the type and frequency of variants during reproduction and multiplication and state how these variants may be identified and (4) evidence of uniformity and stability.

13b Give a summary statement of the variety's novelty. Clearly state how this novel variety may be distinguished from all other varieties in the same crop. If the new variety most closely resembles one or a group of related varieties: (1) identify these varieties and state all differences objectively; (2) attach statistical data for characters expressed numerically and demonstrate that these differences are significant; and (3) submit, if helpful, seed and plant specimens or photographs of seed and plant comparisons clearly indicating novelty.

13c Fill in the Exhibit C, Objective Description form, for all characteristics for which you have adequate data.

13d Describe any additional characteristics that are not described, or whose description cannot be accurately conveyed in Exhibit C. Use comparative varieties as is necessary to reveal more accurately the description of characteristics that are difficult to describe, such as, plant habit, plant color, disease resistance, etc.

14a If "YES" is specified (seed of this variety be sold by variety name only as a class of certified seed) the applicant may NOT reverse his affirmative decision after the variety has either been sold and so labeled, his decision published, or the certificate has been issued. However, if the applicant specified "NO," he may change his choice. (See section 180.16 of the Regulations and Rules of Practice.)

15a See section 42 of the Plant Variety Protection Act and section 180.7 of the Regulations and Rules of Practice.

13A. ORIGIN AND BREEDING HISTORY OF THE VARIETY

'Renumex' sainfoin was developed by the New Mexico Agricultural Experiment Station. This variety originated by selection from a germplasm composite obtained from the Montana Agricultural Experiment Station, Bozeman, Montana, and from the varieties 'Eski' and 'Remont'. The breeding procedure consisted of three cycles of mass-selection, followed by three cycles of phenotypic recurrent selection. Selection was based on rate of regrowth after cutting, persistency, plant color in July (an index of disease resistance), and plant vigor in the spring, during July, and in the fall.

13B. NOVELTY STATEMENT

Renumex is a regrowth type of sainfoin, similar to Remont, but differing in this characteristic from Eski and Melrose. Renumex differs from Remont in that Renumex is 1) less winterhardy, 2) earlier in spring growth, and 3) increased fall growth.

Supplement to 13 A.

Sainfoin Application No. 7900082 'Renumex'

Variants in 'Renumex' sainfoin at Las Cruces, N.M. location.

STEMS: Seedling year has 42 stems per plant with a range of (7-86).
Second year spring growth has 91 stems with a range of 42 - 142.
28% of plants with glaborus stems.
64% of plants with slightly pubescent stems.
8% of plants with Pubescent stems.

LEAVES: 2nd year, spring, 50% bloom.
30% of plants with bluish green leaves
50% of plants with green leaves.
20% of plants with light green leaves.
(Depends upon nitrogen fixation.)

FLOWERS: Petal colors
22% of plants with dark pink and light stripes.
69% of plants with pink and white stripes.
9% of plants with light pink and white stripes.

These variants were consistant over a four year period at Las Cruces location and are considered stable for this location when reproduced.

The re-growth of Renumex has consistantly been 30% over 'Eski' or 'Remont'. Plant color in July (an index of disease susceptibility. Nitrogen deficiency or both.) has also been consistantly better indicating a high degree of stability.

Supplement to:

Sainfoin application No. 7900082, 'Renumex'

13B. Novelty Statement

'Renumex' most closely resembles 'Remont' as a regrowth type differing in this characteristic from 'Eski' and 'Melrose'. 'Renumex' has increased spring growth of 81.3 mm to 71.1 mm for 'Remont; increased fall growth of 53.3 to 45.7 for 'Remont'. 'Renumex' is less winter hardy than 'Remont' above the 38th parallel.

Table_____. Spring and fall dormancy of sainfoin cultivars at Las Cruces, New Mexico, as measured by plant height.

CULTIVAR	SPRING*	FALL**
	Plant height - cm.	
Renumex	81.3	53.3
Remont	71.1	45.7
Eski	53.3	20.3
L.S.D. (P=.05)	9.7	6.8

*Data taken on approximately April 20 over a three year period.

**Data taken on approximately September 20 over a three year period.

RENUMEX 7900082

Variety Name

OBJECTIVE DESCRIPTION OF VARIETY
Sainfoin (Onobrychis viciifolia Scop.)

Characteristics described, including numerical measurements, should represent those that are typical for the variety. Ranges may be given also. Measured data should be for SPACED PLANTS. Describe location and environmental conditions of test area(s) in Section 11. All questions need not be answered; however, strive for completeness in order to establish the most accurate variety identification.

Comparison Varieties - For Use in Completing this form.

1 = ESKI 2 = MELROSE 3 = REMONT

1. PRIMARY AREA OF ADAPTATION:

[5] 1 = Northwest 2 = Northcentral 3 = Northeast

4 = Southeast 5 = Southwest 6 = Southern Plains

7 = Intermountain

2. WINTER HARDINESS:

[2] 1 = Hardy 2 = Intermediate 3 = Non-hardy

3. MATURITY: 50% Bloom (50% of plants with at least one bloom):

a. Year of Seeding

[2] 50% bloom is not attained 1=Yes 2=No

[1][5] Days earlier than [1]*

Maturity same as [3]* Comparison Variety

[ ][ ] Days later than [ ]*

b. Second Growing Season

Spring

[ ][5] Days earlier than [1]*

Maturity same as [3]* Comparison Variety

[ ][ ] Days later than [ ]*

Regrowth after 1st harvest

[ ][5] Days earlier than [1]

Maturity same as [3] Comparison Variety

[ ][ ] Days later than [ ]

* All possible comparisons should be made using more than one variety and throughout form.

4. PLANT DIMENSIONS - (Second Year, Spring, 50% Bloom): 7900082

1 [2|2] cm Plant Height

[|] cm shorter than [ ]

height same as [ ] } Comparison Variety

[1|0] cm taller than [3]

[1|8] cm Crown Width

[|] cm narrower than [ ]

width same as [1,2,3] } Comparison Variety

[|] cm wider than [ ]

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5. STEM:

[4|2] Stems/Plant seedling year (range 7 to 86)

[|9|1] Stems/Plant 2nd year (Spring, 50% bloom) (range 42 - 142)

[|2|8] % Plants with glabrous stems (Spring, 50% bloom)

[|6|4] % Plants with slightly pubescent stems (Spring, 50% bloom)

[| | 8] % Plants with pubescent stems (Spring, 50% bloom)

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6. LEAVES: * (Second Year, Spring, 50% bloom)

[|3|0] % Plants with bluishgreen leaves

[|5|0] % Plants with green leaves

[|2|0] % Plants with light green leaves

} (depends on nitrogen fixation)

Typical Terminal Leaflet: (Second Year, Spring, 50% bloom)

[1|4] mm length

[|] mm shorter than [ ]

length same as [1,2,3] } Comparison Variety

[|] mm longer than [ ]

[|8] mm width

[|] mm narrower than [ ]

width same as [1,2,3] } Comparison Variety

[|] mm wider than [ ]

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7. FLOWERS:

Standard Petal:

[|2|2] % Plants with dark pink and light pink stripes

[|6|9] % Plants with pink and white stripes

[| |9] % Plants with light pink and white stripes

[| |] % Plants with white standard

* Renumex has 3 shapes for terminal leaflets:

1.  15%

2.  35%

3.  50%

(4½) 4.5 Racemes/Stem 2nd. year

__ # less than __
same as 1,2,3 } Comparison Variety
__ # more than __

4 5 Flowers/Raceme 2nd. year

__ # less than __
same as 1,2,3 } Comparison Variety
__ # more than __

2 7 Seed/Raceme 2nd year

__ # less than __
same as 1,2,3 } Comparison Variety
__ # more than __

8. POD WEIGHT:

2 3 g/1000 pods
__ g/1000 pods less than __
Same as 1,2,3 } 1=Eski 2=Melrose 3=Remont
__ g/1000 pods more than __

9. SEED WEIGHT:

1 7 g/1000 seeds
__ g/1000 seeds less than __
Same as 1,2,3 } 1=Eski 2=Melrose 3=Remont
__ g/1000 seeds more than __

10. SEED PRODUCTION:

1 2 g/plant (seedling year)
__ g/plt less than __
same as 3 } Comparison Variety
__ 8 g/plt more than 1

__ 4 2 g/plant (2nd year)
__ __ g/plt less than __
same as 3 } Comparison Variety
__ __ 5 g/plt more than 1

11. CHEMICAL COMPOSITION (Dry Matter Basis, 2nd year, 50% bloom):

Comparison variety [3]

Variety	Protein %	Ether Extract %	Nitrogen Free Extract %	Crude Fiber %	Ash %	Calcium %	Phosphorous %
Applicant	19						
Comparison Variety	19						

Variety	Acid Detergent Fiber %	Neutral Detergent Fiber %
Applicant		
Comparison Variety		

12. DISEASES AND INSECTS (1 = not tested, 2 = susceptible, 3 = resistant):

[1]	Fusarium solani	[1]	Sitona scissifrons
[1]	Fusarium oxysporum	[1]	Lygus spp.
[1]	Ascochyta onobrychidis	[1]	Bruchidius unicolor
[1]	Sclerotina trifoliorum	[ ]	Other _____
[1]	Rhizoctonia solani	[ ]	Other _____

Note: Under 13 ADDITIONAL DESCRIPTION, give comparative reaction with standard variety and indicate if the variety exceeds, equals, or is less than the standard.

13 ADDITIONAL DESCRIPTION: (Use additional sheets as required)

a. Describe location and environmental conditions of test area(s). Las Cruces, NM in southcentral New Mexico, 4000 ft elevation, hot and dry.

b. Describe all characteristics that cannot be adequately described in the form above. Comparative varieties should be used as may be appropriate, such as for disease. Append all comparative trial and evaluation data, including measured characters, and disease tests.

JAIN

PV No. 79-82

'Renumex'

An excess seed sample of this variety was returned to the PVP Office by the National Seed Storage Laboratory. The excess seed was destroyed by PVPO personnel on NOV 14 1994.